

291 6.7 HW Key p333 ~~17, 19~~²⁰, 31-41, odd 42

15. ~~$y < -x^2 + 7x + 8$~~
 ~~$\frac{-7}{2(-1)} \quad V(\frac{7}{2}, 20.25)$~~

17. $y \leq x^2 + 4x$
 $\frac{-4}{2} \quad V(-2, -4)$

Graphs

a.o.s $x = -2$

y-int $(0, 0)$
 $(-4, 0)$

or
next
pg

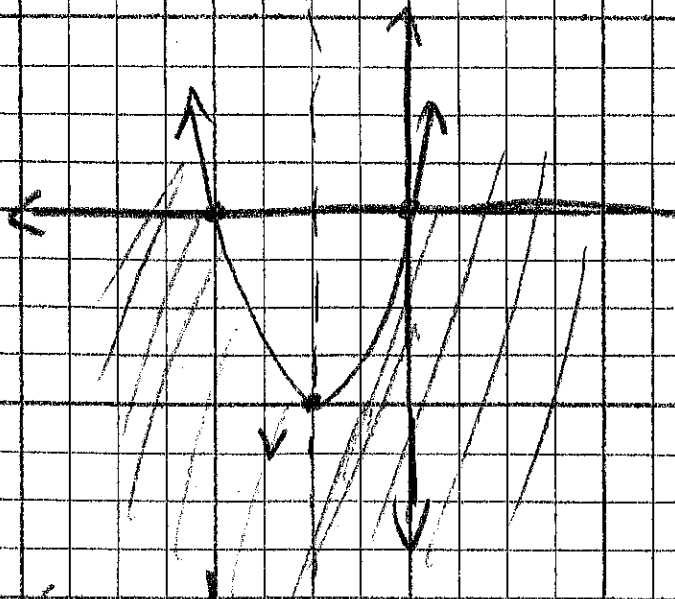
19. $y > x^2 + 6x + 5$
 $V(-3, -4)$ a.o.s $x = -3$

y-int $(0, 5)$
 $(-6, 5)$

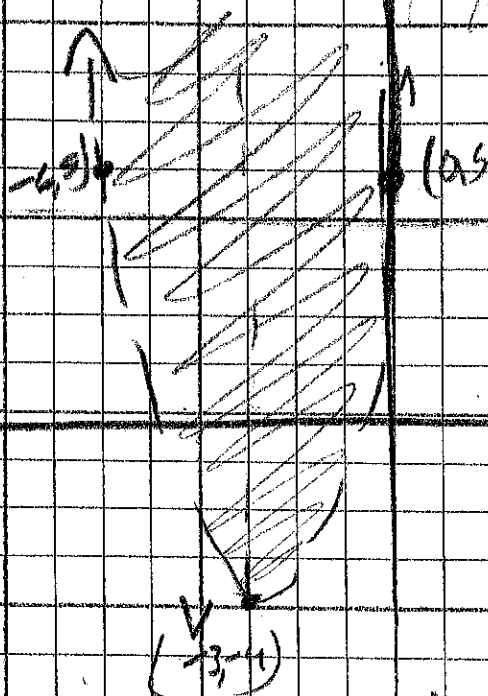
20. $y \leq -x^2 - 3x + 10$
 $V(-\frac{3}{2}, 12\frac{1}{4})$

a.o.s. $x = -\frac{3}{2}$
 $(0, 10)$
 $(-3, 10)$

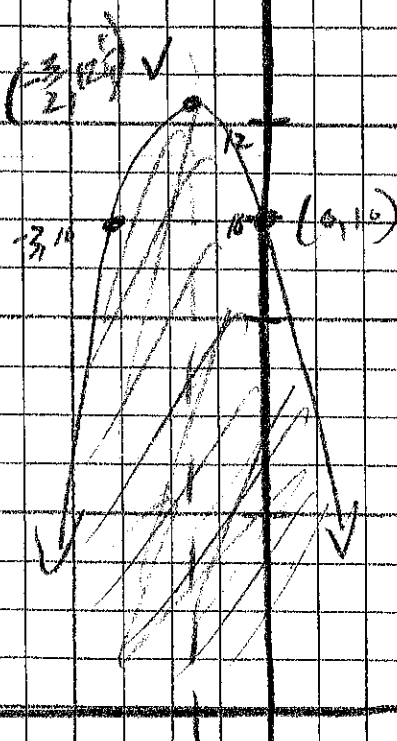
17.



19.



20.

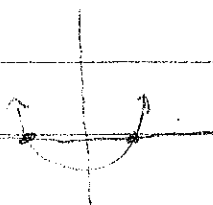


31. $x^2 + 3x - 28 < 0$

$(x+7)(x-4) < 0$

$x = -7 \quad x = 4$

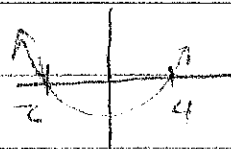
$-7 < x < 4$



33. $x^2 + 2x - 24 \geq 0$

$(x+6)(x-4) \geq 0$

$x \leq -6 \text{ OR } x \geq 4$



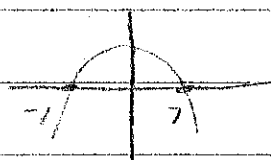
35. $-x^2 - 6x + 7 \leq 0$

$x^2 - 6x + 7 \geq 0$

$(x-7)(x+1)$

$x = 7 \quad x = -1$

$x \leq -1 \text{ OR } x \geq 7$



37. $4x^2 + 20x + 25 \geq 0$

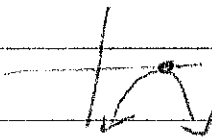
$(2x+5)^2 \geq 0$

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39. $-x^2 + 14x - 49 \geq 0$

$x^2 - 14x + 49 \leq 0$

$(x-7)^2 = 0$



$x = 7$

41. $16x^2 - 24x + 9 < 0$

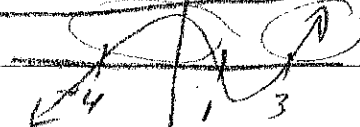
$(4x-3)^2$

$x = \frac{3}{4}$

\emptyset

$(-4, 1) \cup (3, +\infty)$

$-4 < x < 1$



42. $(x-1)(x+4)(x-3) > 0$

